

CORNEAL TISSUE PROCUREMENT: PERFORMANCE PEDIATRIC HUB CENTER

Melosi F¹, Abarca Lopez M¹, Sestini G¹, Pennica M¹, Pietrini I¹, Greco C¹, Masini E¹, Solano Arrojo N¹, Romano C¹, Cambrini A¹, Peris A²

Introduction – In pediatric age, diseases that cause an alteration of the curvature (keratoconus) and of the transparency (congenital, inflammatory, degenerative, traumatic) of the cornea can lead to partial or total blindness, if the damage produced is irreversible. Corneal transplantation represents, in these cases, the only therapeutic possibility and, in pediatric age, must be considered urgent to ensure the development of a normal visual function, particularly under 6 years of age; taking also in consideration the long life expectancy, it is important that the transplant is performed using tissues with excellent biological characteristics. The need for corneal tissue in Italy for patients under the age of 12 has been estimated around 1-2 corneas per month.

The purpose of this work is to demonstrate the effectiveness of the implementation program carried out in our hospital by the coordination of organs and tissues donation to increase corneal tissue procurement from DCD and DBD in the years 2013-2018 in patients under the age of 12

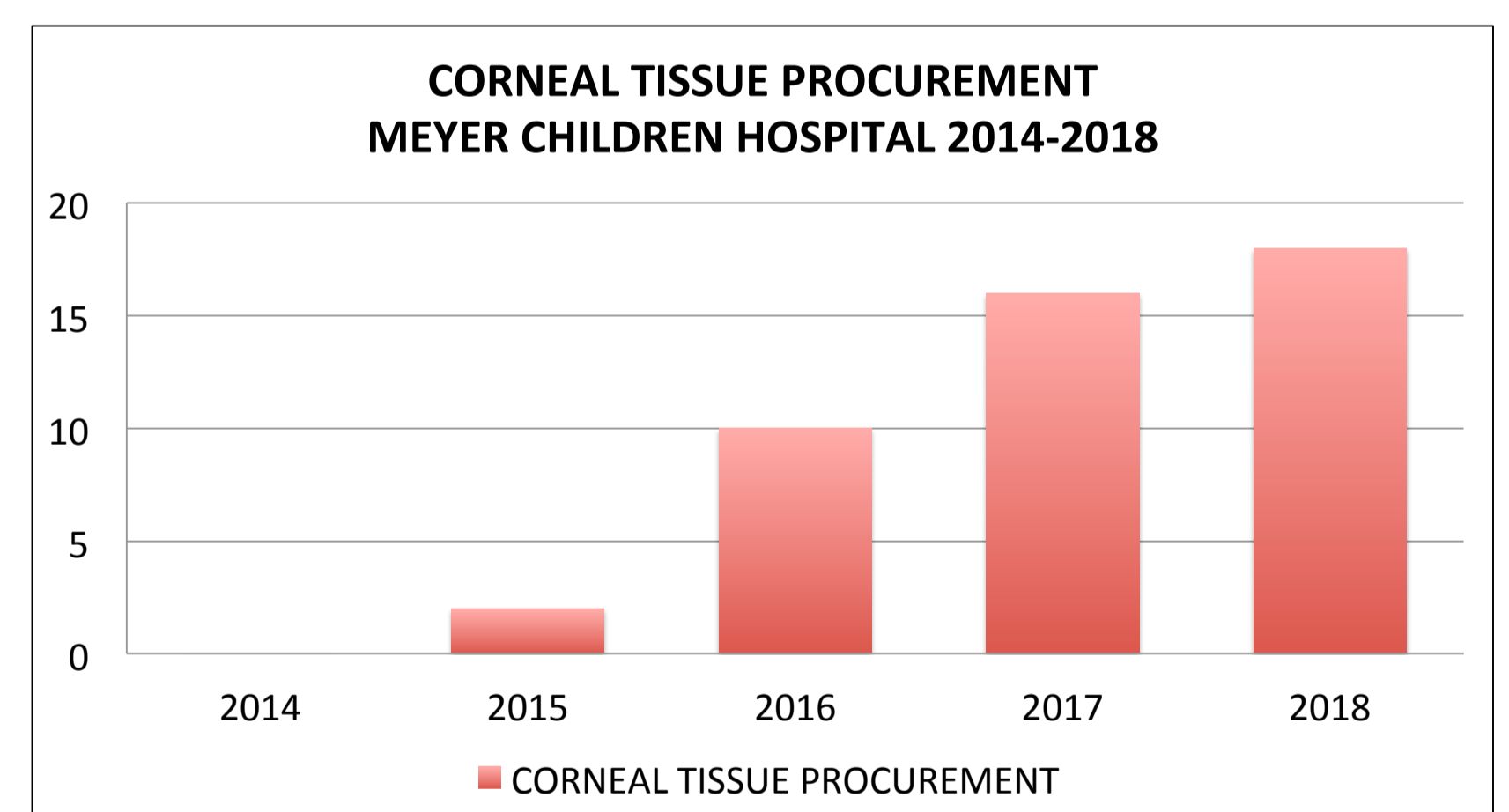
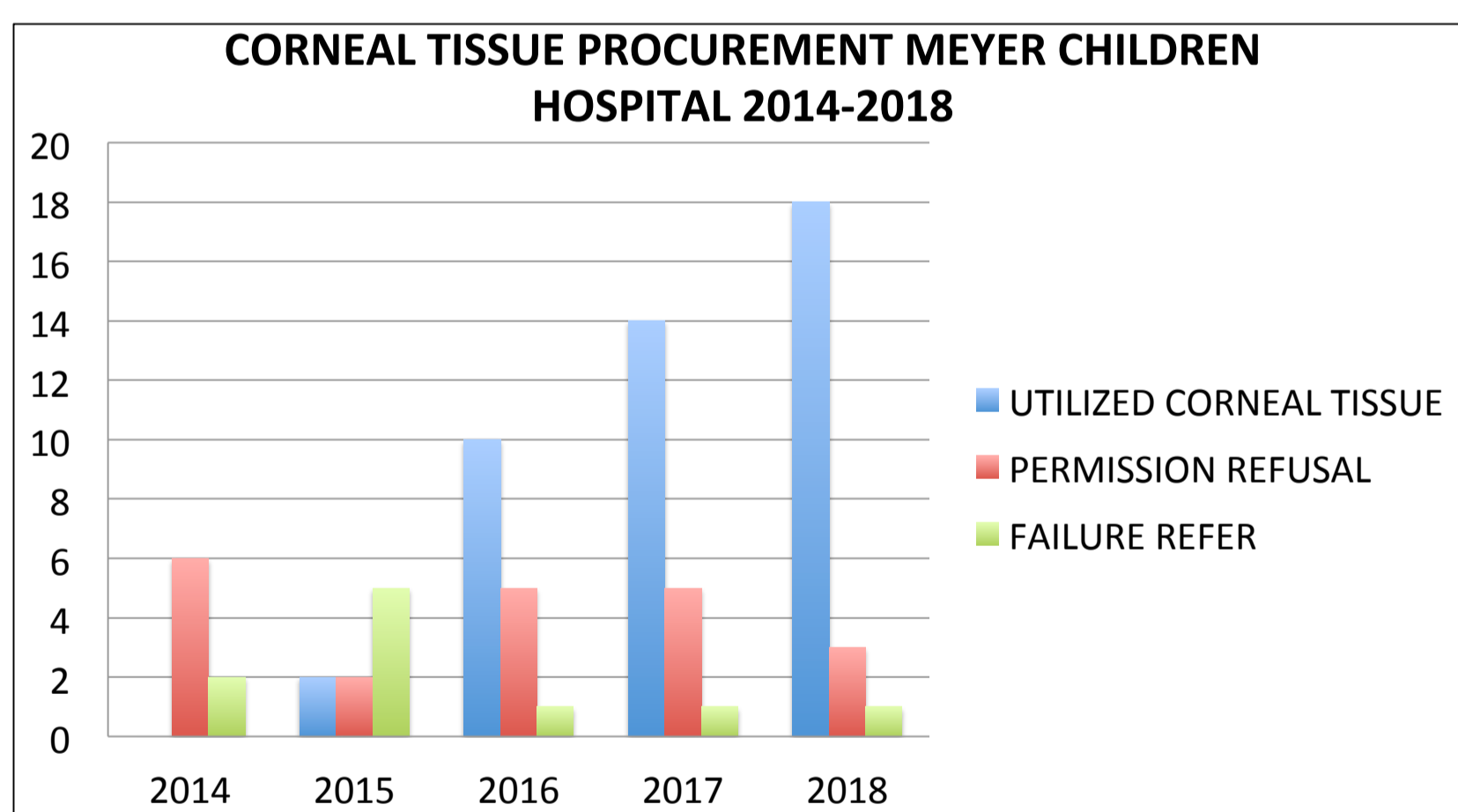
Material-Methods – This project has been implemented through an awareness program directed to the aspects of referral of patients, suitability, consent, procurement time, in order to obtain the best tissue possible in this age group which is particularly important from a transplantation point of view.

The improving measures relate to:

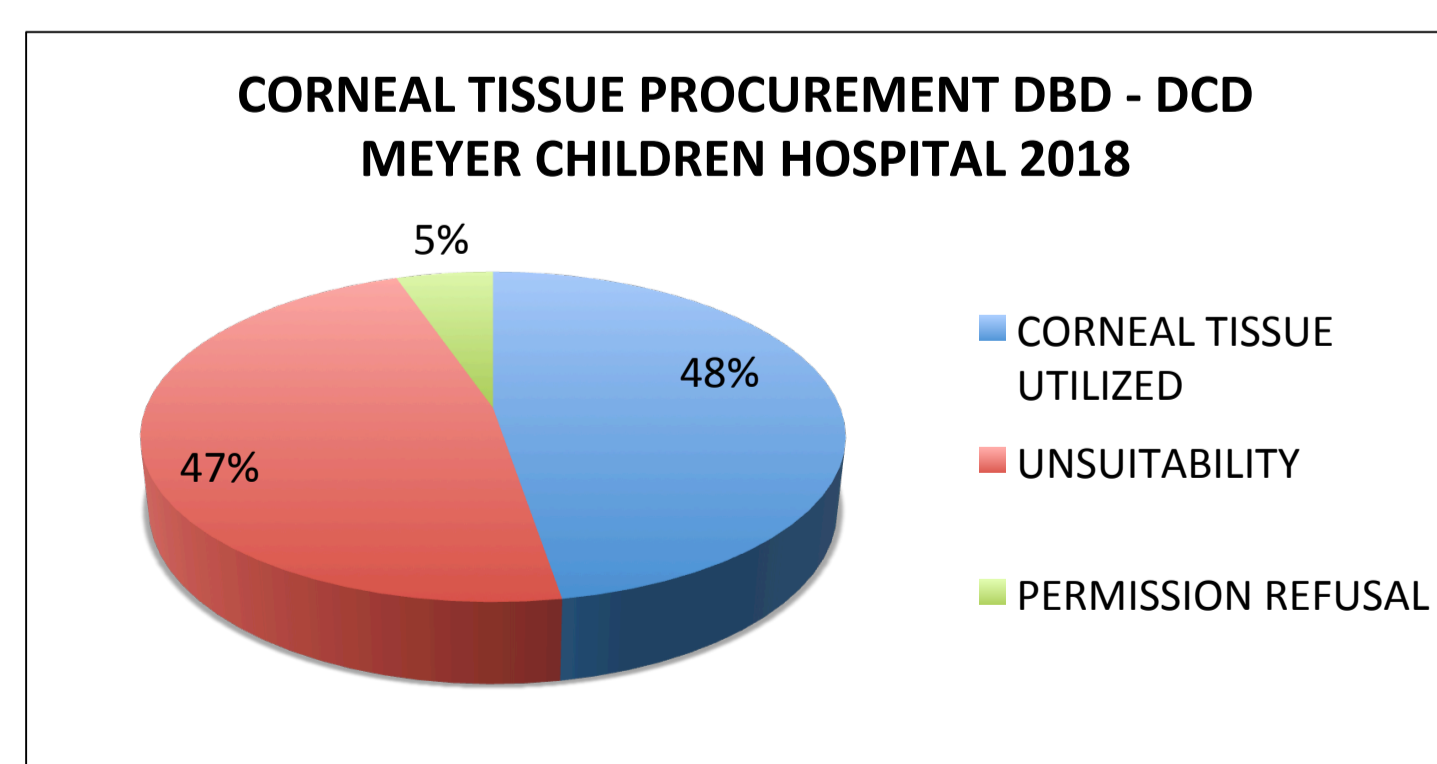
- Continuous training of doctors and nurses;
- Distinction between palliative DCD and unexpected DCD referral processes;
- Early evaluation of the donative potential of palliative DCD;
- Care on informing about the right to donation;
- Availability for informative interviews if requested;
- Adding the Hospital Coordinator in the Palliative Care Committee;
- Availability 24/7 of the medical team responsible for the explantation.

Results - In the 2013-2018 five-year period we observed:

- progressive increase in donations of corneal tissue, from the absence of donations in 2013 to 73% of donors in 2018;
- Reduction of procurement time within 2 hours from reporting, with zero non suitability of the tissues after the procurement.



REGIONE TOSCANA
OTE
 ORGANIZZAZIONE TOSCANA TRAPIANTI
 Efficienza del **procurement di tessuti** del Coordinamento di donazione e trapianto del Servizio Sanitario Regionale
 Periodo esaminato dal 01/01/2018 al 31/12/2018



A.O.U. Meyer - Firenze			
Periodo di riferimento dal 01/01/2018 al 31/12/2018	Numero dimissioni per decesso con età compresa tra i 5 e 78 aa non affetti da patologie escludenti la donazione dei tessuti nella Regione Toscana (totale SDO)	N° Effettivi registrate in eGIT	
	9	9	
			Coefficiente di prelievo di tessuti - Stab. Ospedaliero
			100,0%
			Coefficiente di prelievo - Media Regionale
			20,6%

Conclusion – The corporate awareness process regarding tissue donation has led to an increase in the donative pool and an improvement in the biological characteristics of the donated tissue.

¹ Coordinamento Aziendale Donazione Organi e Tessuti AOU Meyer Firenze, ² Organizzazione Toscana Trapianti. Regione Toscana.